BULLETIN

OF

The National Association for the Study and Prevention of Tuberculosis

Vol. III JANUARY, 1917 No. 4

The American Review of Tuberculosis

A New Monthly Journal

As a result of numerous conferences and more or less continuous demand from all parts of the United States, The National Association for the Study and Prevention of Tuberculosis has decided to launch, in March, 1917, a new monthly scientific publication for physicians and research workers in tuberculosis, to be known as the *American Review of Tuberculosis.*

The purpose of the new *Review* will be to serve as a medium for the dissemination through its articles, notes and abstracts of reliable information from every source with regard to medical and other phases of the nature, treatment and prevention of tuberculosis.

Plan of Publication

It is proposed to publish a monthly *Review* of approximately 64 pages per issue, or about 800 pages to the volume. The publication will be of standard magazine size, and will be printed in attractive and readable form.

The Transactions of the annual meetings of the National Association will be discontinued, and such of the papers read at future meetings of the Association as may be acceptable to the editorial staff will be published in the *American Review of Tuberculosis.* In place of the Transactions in their present form, the Association will publish a pamphlet containing the Report of the Executive Office, the Address of the President, the Report of the Treasurer, List of Members, and such other information as may be suitable for an annual report.

Editorial Arrangements

The editorial policy of the *Review* will be determined by an editorial staff of seven members to be appointed by the Board of Directors of the National Association. All articles, notes, abstracts and advertisements to be published in the *Review* must be approved by the editorial staff. In conjunction with the editorial staff there will be a large board of contributing editors. Announcement as to the membership of the staff and the board will be made later.

The Managing Editor

The Association has secured the services of Dr. Allen K. Krause, of Baltimore, as managing editor of the *Review.* Dr. Krause is widely known as a worker in the research field of tuberculosis, formerly from Saranac Lake and recently appointed by the Johns Hopkins University to take charge of a new Division of Tuberculosis in that institution. Combining as he does unusual ability as an investigator with experience in teaching, Dr. Krause should inspire confidence of workers in tuberculosis throughout the country in the new publication.

Nature of Articles

The editorial contents of the *Review* will consist chiefly of three types of reading matter: first, original articles, secondly, papers read at annual meetings of the National Association; and thirdly, notes and abstracts such as have been published for several months in the BULLETIN of the National Association. The department of "Medical Notes, Abstracts and Reviews" in the BULLETIN will be discontinued, but the services of Dr. George Mannheimer, in connection with the publication of similar abstracts and notes in the *Review,* will be continued. By means of these three groups of articles the *Review* will aim to keep physicians and others interested in the scientific aspects of tuberculosis abreast of the best thought in this field.

Advertisements

Advertisements of books, periodicals, instruments and sanitary appliances dealing with the treatment of tuberculosis, and of interest to physicians, will be accepted subject to the approval of the editorial staff.

Price

The price of the *American Review of Tuberculosis* to members of the National Association will be $2.00 per year, over and above their regular membership dues of $5.00. All members will still receive the *Journal of the Outdoor Life* unless they specifically request to the contrary. This new publication, the *Review,* will be sent only to those who subscribe for it. To non-members of the Association the price of the *Review* will be $3.00 per year.

Special club rates for sanatoria, dispensaries, associations, boards of health and other similar agencies will be made for clubs of five or more. The price of the *Review* has been fixed as low as possible to insure a satisfactory publication. As contrasted with other publications of a similar nature, the price will appeal to members of the National Association and others as very moderate.

Date of Publication

It is planned to begin publication of the *Review* in March, 1917, which issue will be Number 1 of Volume I. Subscribers who wish to be sure of the first issue should send in their subscriptions before March 1st. Medical members of the National Association and other readers of the BULLETIN are urged to subscribe at once. Checks accompanying subscriptions should be made payable to William H. Baldwin, and should be sent to the executive office of the National Association, which will serve as the business office of the *Review.* Further information may be secured upon request to the National Association.

BULLETIN OF
THE
NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS

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In the Interest of Workers Engaged in the Anti-Tuberculosis Movement by
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Committees on Sectional Conferences

In accordance with plans adopted last year by the National Association, each of the sectional conferences has appointed a special Continuation Committee, which, in conjunction with the Executive Office of the Association, will arrange for the dates and place of meeting and the details of the program. The committees for each of the sectional conferences are given below. In addition to the sectional conferences mentioned in this list, there will also be one for the North-western States, probably to be held at Portland. The dates for the sectional conferences have not yet been decided upon, but will be announced in an early number of the BULLETIN. Readers of the BULLETIN who have suggestions with regard to programs, place and time of meeting, are urgently requested to transmit them at once to the Executive Office.

NORTH ATLANTIC TUBERCULOSIS CONFERENCE

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MISSISSIPPI VALLEY TUBERCULOSIS CONFERENCE *

James Minnick, Chicago, Ill., President; Dr. Robinson Bosworth, St. Paul, Minn., Secretary; A. W. Jones, Jr., St. Louis, Mo.; Dr. H. E. Dearholt, Milwaukee, Wis.; A. J. Strawson, Indianapolis, Ind.; Miss Maude Van Syckle, Detroit, Mich., and Dr. R. G. Paterson, Columbus, O.

NEW ENGLAND TUBERCULOSIS CONFERENCE

William A. Viall, Providence, R. I.; Dr. Walter R. Steiner, Hartford, Conn.; Dr. Kingsbury B. Piper, Fairfield, Me.; Dr. Robert B. Kerr, Concord, N. H.; Dr. Charles S. Caverly, Rutland, Vt., and Dr. E. O. Otis, Boston, Mass.

SOUTHWESTERN TUBERCULOSIS CONFERENCE

Dr. J. Metzger, Tuscon, Ariz.; Miss E. L. M. Tate, Sacramento, Cal.; Dr. Livingston Farrand, Boulder, Colo.; Mrs. J. M. Fulton, Reno, Nev.; Mr. Lucius F. Reed, Albuquerque, N. M.; Dr. J. C. Mahr, Oklahoma City, Okla.; Dr. R. B. Homan, El Paso, Tex., and William J. Deeney, Salt Lake City, Utah.

Tuberculosis Bibliographies

Those who are interested in reading authoritative books and pamphlets on tuberculosis, or in starting or developing a library on the subject, will find two recent publications exceedingly helpful.

One is Bulletin No. 18 of the Russell Sage Foundation Library. It is entitled "Tuberculosis: A Selected Bibliography," and the selection and annotations were made by Philip P. Jacobs, assistant secretary of the National Association. The bibliography includes some of the most important books, pamphlets and articles dealing with the social phases of tuberculosis. The titles are arranged under the headings of general works, treatment, organization and education, hospital methods, dispensary and nursing methods, work with children, industrial problems, and housing and other problems in relation to tuberculosis. Copies of this Bulletin may be secured from the National Association.

Another list of books, arranged especially for medical practitioners, has been published in the form of a four-page leaflet by the *Journal of the Outdoor Life*. This pamphlet gives a brief description of each book listed, together with prices, etc. A copy of the leaflet will be mailed upon request to the *Journal of the Outdoor Life*, 289 Fourth Avenue, New York.

* This committee is known as the Central Council of the Mississippi Valley Conference.

Baby Week—May 1-6

The national celebration of Baby Week has been set for May 1 to 6 by the Children's Bureau, co-operating with the general Federation of Women's Clubs. Last year more than 2,000 towns and cities reported to the Children's Bureau of the United States Department of Labor that a Baby Week Campaign was carried out.

This year the scope of the campaign has been widened to include children up to five and six years of age. It is also expected that the number of communities observing the week will be greatly increased. Detailed plans for Baby Week and suggestions for the co-operation of anti-tuberculosis associations and committees will be described in a later issue of this BULLETIN.

It is suggested, however, that anti-tuberculosis workers offer their assistance in the campaign at once. Those who took part in the Week last year will recall that health plays, published in various issues of the BULLETIN, were used in a large number of communities. The National Association is at present planning to reprint a number of these plays in leaflet form, each play in a separate pamphlet. In this way they will be available for use in as many communities as desire to use them, whereas at present the Association finds it necessary to refuse requests for some of them, because the issues of the BULLETIN containing them have been exhausted. The price of the leaflets will be announced later.

It is not too early to start preliminary plans for Baby Week now. Suggestions for programs will be found in a bulletin on "Baby Week Campaigns," which will be sent free upon request to the Children's Bureau, United States Department of Labor, Washington, D. C.

The Community Health and Tuberculosis Demonstration at Framingham

Every anti-tuberculosis worker in the United States is strongly urged to acquaint himself with the statement given below of the program of the Community Health and Tuberculosis Demonstration now being carried on in Framingham, Mass., under the direction of Dr. Donald B. Armstrong, by the National Association.

Readers of the BULLETIN will recall the announcement of a gift of $100,000 to the Association by the Metropolitan Life Insurance Company, described in the June, 1916, issue. Later, Dr. Edward R. Baldwin, President of the National Association, announced the following committee to supervise the experiment:

Dr. E. R. Baldwin, Saranac Lake, N. Y., Chairman; Dr. Lee K. Frankel, New York; Homer Folks, New York; Dr. Stephen J. Maher, New Haven, Conn.; Dr. Arthur K. Stone, Boston, Mass.; Dr. William Charles White, Pittsburgh, Pa., and Dr. Charles J. Hatfield, Executive Secretary of the National Association.

Dr. Donald B. Armstrong, formerly of the Association for Improving the Condition of the Poor, was chosen by the committee as director of the experiment, and he was also added to the staff of the National Association as assistant secretary. After a canvass of several cities in New York and Massachusetts as a seat of the experiment and full consideration of the matter by the committee, announcement of the selection of Framingham, Mass., a city of about 16,000 population, was made on November 10th. Dr. Armstrong took up his residence in Framingham a week later. His office address is Wilsonia Building, Framingham, Mass.

In the Framingham *Evening News* of Thursday, December 28, 1916, Dr. Armstrong issued a statement giving an outline of the work to be undertaken at the Community Health Station, which is the name given to his headquarters. This statement is, in part, as follows:

WHY WAS FRAMINGHAM SELECTED?

1. Because it was in a good state with a good department of health.

2. Because it contained various types of industries, various kinds of people racially, and was a separate self-supporting community, and not a suburb. In addition, Framingham is a well-known town for its size, and for that reason it will be easy for other places in this country and throughout the world to watch the experiment.

3. Because the town has a good Board of Health and Health Officer, wide awake and progressive city officials and good private educational and relief organizations.

3. Because the town had a good hospital and many well-trained and progressive physicians.

5. Because of the promise of co-operation from private and official bodies, because the town was willing to meet its own obligations.

6. Because health conditions were average and typical, because there was an average amount of tuberculosis and average activity in its attempted control.

7. Finally, because it was an average town with real problems, but with a "forward look," boding a higher degree of success for the demonstration than seemed to be the case in the nine other towns visited in Massachusetts and New York.

WHAT IS THE PROGRAM?

1. The establishment of an office, the appointment of a local committee, the introduction of the program to all the organizations and people in Framingham.

2. The provision, with the help of local citzens and organizations, of complete care for known cases.

3. The early discovery of unknown, advanced cases, with the help of Framingham doctors and nurses.

4. A thorough knowledge of the whole town, including sanitary conditions, factory conditions, school conditions, commercial and office conditions and rural conditions.

5. The establishment of a series of tuberculosis lectures and clinics by the country's most famous experts, for local physcians, emphasizing uniform and efficient work, and showing the way to the rest of the state and country for the use of the best methods of diagnosis and treatment.

6. The co-ordination of Framingham health activites, including the work of the demonstration committee, school health work, factory health work, the work of the board of health, infant health work and charitable relief.

7. The co-ordination and, if necessary, the expansion of Framingham medical facilities, including laboratory, dispensary and hospital, with the establishment of necessary connections with outside medical agencies, such as the state and country sanatoria, the Boston medical schools, etc.

8. An educational campaign carried on through general public channels, through school and factory, etc. This educational campaign will be aimed at the detection and prevention of early cases of tuberculosis and will urge the prevention of infection and the creation of healthful conditions. It ought to result in a "Spotless Town," in which healthy people may live. Incidentally, the educational campaign will also urge thorough annual medical examinations for everyone.

9. Another important phase of the program is the thorough medical examination of all the Framingham citizens who are willing to go to their doctor or to the dispensary for this purpose. Everyone will have the advantage of the best expert medical opinion on difficult or doubtful cases. This thorough medical examination ought to result in the detection not only of early and easily curable cases of tuberculosis, but in many other things that can be treated successfully only when discovered early, such as cancer, Bright's disease, etc. The demonstration will not be an entire success unless a substantial number of Framingham citizens acquire the habit of annual medical examinations.

10. Home care, with adequate nursing and medical facilities for tuberculosis cases, will be urged. Hospital care, in state or county institutions, will be recommended and provided for in some way when necessary.

Possibly an old school building in a rural section of Framingham may be used for certain types of cases until the county's hospital, now being planned, can be completed.

Possibly another old school building may be used during certain months of the year as a preventorium for undernourished children who have been exposed to tuberculosis, but who do not as yet have the disease.

Such a scheme, with the co-ordination of medical, nursing and charitable facilities, ought to insure adequate provision for all types of tuberculosis, including the pre-tuberculous, the suspicious cases, the incipient cases, the advanced cases, the surgical cases and the arrested cases which have been under treatment at home or in a sanatorium.

WHAT IS FRAMINGHAM'S PART IN THE DEMONSTRATION?

1. If the demonstration is to be a success, it must have the earnest co-operation of the Framingham physicians in the detection and reporting of tuberculosis cases, in the making of thorough medical examinations, etc. This will mean a considerable burden of work for the physicians, and for that reason will have to be paid for by the Framingham people themselves, sick or well, if possible, or by local charitable agencies and the demonstration committee's special fund for this purpose.

2. The demonstration must have the help and good will of Framingham town officials, private agencies, private citizens, factory owners, newspapers, etc.

3. The help of the anti-tuberculosis society is essential, and all should be willing to follow completely the advice and treatment recommendations of their physicians.

4. Finally, Framingham should continue to meet its natural and normal town health obligations. These may be outlined as follows, and concerning them, assurances have been given the committee that most or all of them will be met either from the town funds or from funds to be provided by private organizations:

(a) The maintenance of a health office with a full-time officer and public health laboratory.

(b) A tuberculosis dispensary and full-time tuberculosis nurse.

(c) Medical school inspection, a full-time school nurse, and, if possible, a full-time school physician.

(Concluded on page 4)

The Schermack Corporation Distributing Stamp-Vending Machines

Many state and local anti-tuberculosis associations in various parts of the country have been approached by the Schermack Corporation of Detroit, a concern which is distributing machines that sell postage stamps. This company has recently decided to distribute its machines only on a basis whereby philanthropic associations receive a certain share of the profits from the use of the machines.

Briefly, their arrangement is somewhat like this: The machines, in any number desired by anti-tuberculosis societies or similar organizations, are placed in the community in drug stores, hotels and other prominent places, with a card attached, reading somewhat as follows: "Buy sanitary postage stamps here. Help fight tuberculosis. Service supplied by the anti-tuberculosis society." The machine vends two two-cent stamps or four one-cent stamps for a nickel. The one cent profit on each transaction is divided equally between the anti-tuberculosis society or similar agency and the company. The anti-tuberculosis society must provide the capital necessary to purchase the stamps to supply the machines, and unless two hundred or more machines are used, the society must provide the service necessary to collect the cash and keep the machines filled with stamps. The company furnishes printed matter and helps in the distribution of the machines. It also reimburses the anti-tuberculosis society for any mutilated stamps or slugs. The company makes no agreement with the tuberculosis society, which agreement, however, can be terminated at the pleasure of either party.

The business of distributing the machines and promoting this arrangement chiefly with anti-tuberculosis societies is being carried on by the "Charities Aid Department" of the Schermack Corporation, under the direction of Dr. William B. James, of Detroit. In a recent interview with a representative of the Executive Office of the National Association, most of the possible contingencies in relation to this proposition were discussed. Dr. James' relation to the concern is a purely business one. He is not a practicing physician and has not been for some time. Reliable physicians in Detroit, however, have spoken very highly of him as a man of honor and a good business man.

After a thorough consideration of the proposition, one is impressed both with the advantages and disadvantages of the plan. The advantages may be enumerated as follows: 1. The use of these machines do afford a relatively easy manner of securing money, since it is true that the public in large drug stores and other busy centers patronize these machines liberally. Records show that in some drug stores the receipts from one machine will average as high as $30 a month, half of which goes to the anti-tuberculosis society. 2. The machines also afford a certain desirable medium for advertising the anti-tuberculosis society, since the cards which are used on them, and which can be changed from time to time, keep the work of the society constantly before the public in the most conspicuous places in the city.

As to the disadvantages of the scheme, the first that may be mentioned is that of mixing philanthropy and business. While it is always difficult for a philanthropic organization to trace the results of such a combination, experience in all lines of social work has proven that it is a very dangerous practice. It is dangerous not only in that it tends to lessen financial support, but also in that it tends to give the public a distinctly false impression with regard to the nature of the work of the association. For example, it is not at all inconceivable that the constant use of these machines by an anti-tuberculosis society would tend to give the public the impression that the society was getting all of the revenue it needed from the sale of postage stamps, and that its chief work consisted in selling these stamps, which impression would certainly be a serious detriment to the anti-tuberculosis campaign in that community.

A second disadvantage is this: That the use of these machines will very likely have a definite effect upon the appeals for funds of an anti-tuberculosis society. There are many people who when they receive an appeal to buy a hundred Red Cross Seals or to give one dollar or two dollars to the anti-tuberculosis society will immediately react by saying that they have purchased five cents' worth or ten cents' worth or twenty-five cents' worth of stamps from the machines of the society, and that, therefore, they have done their duty. Thus, the anti-tuberculosis society gets half a cent or one cent or even ten cents, as the case may be, when it ought to get one dollar or two dollars. It is true that only the test of time will determine how serious this and the other objection may be.

The machines are in use on the basis indicated in this article in a number of different cities, such as Columbus, Ohio, where they are being used for the Children's Hospital, and Grand Rapids, Mich., where they are being used by the anti-tuberculosis society. The latter organization writes very enthusiastically of the use of the machines. They have over seventy machines in operation and report that their returns are averaging about twenty-five dollars per week. Out of this must be paid the services of an attendant to take care of the machines, which would amount to about one day's time per week.

Scretaries of anti-tuberculosis societies are urgently requested to consider this proposition very carefully and to weigh the advantages and disadvantages of it before entering into any arrangement with the Schermack Corporation.

COMMUNITY HEALTH DEMONSTRATION

(Concluded from page 3)

(d) An infant welfare clinic and at least a part-time infant welfare nurse.

(e) A district visiting nurse, the expense to be met in part at least by the Visiting Nurse Association, Metropolitan Life Insurance Company, assisted by the nurses at the hospital.

(f) The efficient co-ordination of charitable agencies.

(g) Open-air rooms in the schools and possibly a dental clinic.

(h) The co-operation of as many people as possible in making successful the campaign for thorough annual medical examinations.

(i) Full co-operation in the use of the old school building now used by the department of health as an isolation pavilion, as a temporary place for certain types of cases, if necessary, pending the completion of the county's hospital, particularly for cases that cannot wisely be cared for at home, owing to the exposure to infection of infants and children; the expense to be met jointly by the demonstration committee and the hospital.

(j) The co-operation with the committee in the use, if necessary, of another old school building to be used as a preventorium for children.

(k) Willingness on the part of patients to follow advice and treatment of their physicians.

RESULTS EXPECTED AND HOPED FOR

1. The discovery and adequate care of all cases of tuberculosis, the reduction of sickness and deaths to a minimum.

2. The general health and sanitary improvement of all of Framingham and its population, the prevention of other diseases as well, resulting in a reduction in the general death rate from all causes.

3. The demonstration of the belief that disease prevention for any town is cheaper than disease, both to the town and to the sick person.

4. The making of Framingham the world's healthiest spot and hygienic Utopia.

5. The spending locally of $100,000 or more.

6. The transformation of Framingham into the healthiest and safest place to trade and the safest town from which to advertise manufactured products—a substantial asset.

7. Fame for Framingham—the eyes of the medical, health, scientific and popular worlds are upon her.

8. The working out, at the end of the experiment, of the best health and disease preventive machinery for a town of Framingham's size.

9. The demonstration of the cheapest and most efficient method for the prevention of tuberculosis—a plan for other towns the world over to copy.

10. The answer to the questions: Are we spending our money wisely? What methods in disease prevention are worth while?

11. The successful demonstration of a worthy program for the conquest of tuberculosis and for the enthronement of health.

Medical Notes, Abstracts and Reviews

The object of this monthly department of the "Bulletin" is to put physicians in easy touch with medical and scientific literature, both American and foreign, including magazine articles, books, reports, etc., that bear directly or indirectly upon the treatment and prevention of tuberculosis. This is not a department for news and editorial comment. Its function is rather that of a catalogue or a librarian. Any material for this department of the "Bulletin" should be sent to Dr. George Mannheimer, 41 West 51st Street, New York, who has been chosen medical editor.

Readers of the "Bulletin" who wish to have copies of the publication sent to physicians working in dispensaries, sanatoria, laboratories, and in other forms of tuberculosis activities, who are not now receiving it, should send in such lists of names to the National Association. The "Bulletin" is sent free to those who are engaged in anti-tuberculosis work.

Prophylaxis of Tbc. Meningitis.—Jeanneret insists on the necessity for impressing on every pregnant woman where there is a case of "open" Tb. in the immediate family that the coming child must be separated at once and kept entirely away from contact with the tbc. parent or other relative. Any furtive kiss or brief visit compromises the success of the sacrifice. As soon as the child has passed the period when generalization of tbc. infection is most menacing, that is, when it reaches its eighteenth or twentieth month, it can be restored to the family. The risk for the child is comparatively small by that time. As it is a question of life or death for the infant, the transient separation can generally be arranged when the parents have the matter presented to them in the right light. Jeanneret thinks that the ideal is to organize an institution where the newborn children of indigent parents could be segregated from contact with the tbc. The relatives could visit the baby regularly and inspect its progress through a glass partition. Switzerland has already several such asylums for the newly born, and he regards them as an indispensable adjunct to the Tb. dispensaries. A number of typical cases are cited showing the necessity for removing the new-born at once and the evil that results when this is neglected or delayed.

In case the nursling is already infected, we must act quickly and vigorously, and his reliance is on tuberculin. He gives it by the Mantoux technic, intracutaneously. This imitates Nature's processes by the localization; it creates in the child's skin an artificial focus, corresponding to a spontaneous focus without living bacilli, from which the tuberculin is gradually absorbed and gets into the general circulation, and thus stimulates the production of the specific reactions of defense. This artificial focus is maintained by repeated injections of tuberculin, and in his experience it seems to have been fully as potent as a bone or gland lesion in protecting against generalization of the infection. Intracutaneous injections are simple and easy. The skin is pinched up into a fold, and the very fine needle is introduced, parallel to the surface. He injects 0.01 c.c. of a 1:1,000 solution, repeating the injection every third day and increasing the strength very gradually till 0.1 c.c of a 1:10 solution is reached in time. The local reaction is less in infants than in older children. A febrile reaction is common, but brief. As the child grows older, it manufactures its own tuberculin in its tbc. glands, and does not need artificial tuberculinization. He is confident that he has saved certain infants by these prompt measures, and does not hesitate to recommend them even when the prognosis is quite grave.—*Prophylaxis of Tuberculous Meningitis and Miliary Tuberculosis in Children, L. Jeanneret, Arch. de Med. des Enfants, Aug. No. 8, 1916.*

The Tbc. Soldier.—Osler states that the Allied armies in the West have been singularly free from camp diseases; the common civilian diseases, however, have had their innings, and have played relatively the more important rôle. The soldier takes with him into camp two great enemies—the tubercle bacillus and the pneumococcus. The proportion of tbc. individuals is much less than among civilians. In 1915, 2,770 cases of Tb. were dealt with by the Chelsea Boards, but it cannot be said just what proportion this bears to the enlisted force. An inquiry shows that in 13 sanatoriums out of 160 cases 90 were regarded as due to the war; in 5 other places most or very many out of 84 were attributed to this cause. Of the 2,770 cases considered in 1915 only 1,641 were granted pensions. The question arises as to what becomes of the remainder. Reviewing the whole situation Osler offers the following suggestions: (1) A more searching examination should be made of all recruits. Doubtful cases should be referred to the Tb. expert of the district. Men unfit to be worked up to the soldier standard become simply material for pension claims. (2) Army experts should decide upon the doubtful cases before their discharge. Provision should be made for their study. There are plenty of Tb. experts in khaki whose knowledge should be used to put these cases in their proper category. (3) A national organization should look after the welfare of the tbc. soldier. A roll and record should be kept, and every case supervised with the greatest care. The National Association should undertake this work in co-operation with the Society for the After-care of Soldiers. A small central committee of these two bodies could organize committees in each county and bring official pressure to bear on authorities to furnish the proper hospital accommodation.—*An Address on the Tuberculous Soldier, W. Osler, Lancet, Aug. 5, 1916.*

Treatment of Local Tbc. Processes.—Excellent results are reported in the treatment of tbc. abscesses and tbc. involvements of the joints, lymph nodes, and skin by means of injections of a solution of guaiacol and iodine in ether:

R Guaiacolis.....gtt. v;
Tincturæ iodi (Codex)..gtt. xij;
Ætheris.....10 c.c.
Fiat solutio.

The solution is prepared immediately before use. A quantity of it, varying from a few drops to one-half c.c. is injected daily or on alternate days at one or two points of the tbc. lesion under treatment. While a large injection may cause considerable though evanescent pain, injections of small amounts cause little or no pain, and may be repeated frequently. Any notable local reaction indicates that smaller amounts should be used. The needle to be inserted into the disease focus should be as fine as possible; ordinary hypodermic needles suffice, but must be available in different lengths, in order that the deeper foci may be reached. Large-caliber needles predispose to sinus formation. By this form of treatment previously active white swellings of the shoulder, knee, and wrist were arrested and cured which would otherwise have required resection. Many glandular swellings commonly opened by the bistoury were likewise caused to retrogress. In Tb. of the skin the procedure gave results rivaling those afforded by X-rays, and presented, furthermore, the advantage of being available to all practitioners.—*Treatment of Local Tuberculous Processes, Defontaine, Presse Med., July 20, 1916.*

Differentiation of Pulmonary Tb. from Chronic Nasal Affection or Other Cause.—Rist has encountered a number of cases of cough in which some other affection was mistaken for pulmonary Tb. If scarcely any or no signs of a lesion are found in the lung and no bacilli can be detected in the sputum, but there is a persisting cough, this may be traced to some heart or kidney trouble. Mitral stenosis, in particular, is liable to keep up a cough and induce hemoptysis, and there may be fever with the congestion of the lungs for which this valvular defect is responsible. Atony and sagging of the stomach also drag down the patient and may induce coughing. Roentgenoscopy clears up such cases and the wearing of a supporting belt brings improvement almost like magic. Incomplete forms of exophthalmic goiter are frequently mistaken for Tb. at first. The cough in these cases is dry, fatiguing and very tenacious, and the loss of flesh, sweats, etc., easily lead into error unless the Graefe and Moebius signs are sought for and roentgenoscopy applied and the sputum examined.

Patients in the foregoing groups are mostly women; when a man has a persisting cough it is very liable to be the result of a chronic nasal affection. Few infirmities are so well tolerated as chronic nasal affections. A rhinologist was recently sent back from the front for supposed pulmonary Tb. when time proved his clinical freedom from Tb. of the lung, but revealed that he had an unsuspected purulent nasal affection of long duration. The men do not seem to notice that a nostril is obstructed much of the time. They hawk in the morning and catch cold easily. There may be a cough-producing affection without interference with breathing. The lack of resonance in the nasal passages may modify the voice in a characteristic way, readily recognized when once heard. Varices may develop at the base of the tongue and their rupture simulate hemoptysis. Secondary bronchitis is frequent, and this may set

up fever along with the cough, but negative roentgenoscopic and bacteriologic findings will exclude Tb. Another source of possible error is that the defective breathing leaves part of the lung unventilated.

In most of these cases some lurking chronic sinusitis is responsible for the acute and recurring rhinitis and the descending infection of the air passages below. The general practitioner must realize that the nasal accessory cavities are frequently the seat of an infectious process whose effects may be felt throughout the bronchial apparatus. Removal of some hypertrophied turbinate or polyp or the cure of some chronic sinusitis abolishes at one stroke the cough and other disturbances. Even the rhinologists fail to realize that the cough and bronchitis are tributary to the sinusitis. Rist declares that many patients of this type are found in the sanatoriums for the tbc. and are cited among the "successes" under tuberculin. "It is easy to cure a man of tuberculosis when he has not got it."—*Differential Diagnosis of Pulmonary Tuberculosis and Chronic Nasal Affections, E. Rist, Presse Med., July 24, 1916.*

Tb. in Boston.—The Boston Health Department has recently published a survey of conditions in this city with regard to the incidence, prevalence and mortality of Tb. The following table presents a summary of the incidence and mortality of the disease during the past fifteen years:

Year	Population	Cases Reported	Deaths	Deaths per 10,000	Cases Unreported until Death
1900	561,892	*815	1,407	25.06	...
1901	568,763	1,149	1,346	23.67	...
1902	576,049	944	1,247	21.65	...
1903	583,335	1,355	1,227	21.03	...
1904	590,621	2,138	1,280	21.67	695
1905	597,908	2,168	1,224	20.47	605
1906	613,075	2,131	1,185	19.33	406
1907	628,242	2,623	1,138	18.11	481
1908	643,409	2,646	1,094	17.00	400
1909	658,576	2,905	1,072	16.28	320
1910	673,045	3,479	1,163	17.28	328
1911	684,811	3,137	1,067	15.58	62
1912	712,534	3,332	1,093	15.34	40
1913	724,493	3,195	1,064	14.69	46
1914	736,442	2,645	1,045	14.19	40
1915	748,431	2,775	1,034	13.82	27

*Seven and one-half months.

The above figures show a continuous decline in the incidence of Tb. since the Boston Health Department began its work of conflict against the infection in 1900.

"In 1900, with a population of 561,892, there were 1,407 deaths from pulmonary and laryngeal Tb. In 1915, with 748,341 inhabitants, the deaths were 1,072. This is a decline from 25.00 per 10,000 in 1900 to 13.82 in 1915.

"In 1915 there were 81 non-residents who died of Tb. in Boston, while 181 residents of Boston died in other places in Massachusetts, chiefly in State institutions. More residents of Boston go to hospitals in other places in the State for treatment for Tb. than come in from outside.

"In May, 1900, the Boston Board of Health first began to require that all cases of pulmonary and laryngeal Tb. should be reported. The idea was new and progress was slow. The medical profession did not heed the request readily. Hesitancy in making a diagnosis or regard for the patients' feelings caused physicians to delay notification of the disease, or to neglect to report entirely. For the first four years the reported cases were less than the number of deaths. Efforts were made to correct this imperfect registration. Physicians were requested to give their reasons for failure to report. On Aug. 1, 1907, the State Board of Health declared Tb. to be a disease dangerous to the public health, thus making it a criminal offence for a physician or householder to fail to report. More rigorous methods were then taken. Every death from Tb. that was not found in the registry of reported cases was investigated, and warning was given that delinquents would be prosecuted. Flagrant offenders were brought into court, and a number fined $50 each for failure to comply with the law. A great improvement resulted. The unreported deaths fell from 481 in 1907 to 62 in 1911, and in 1915 these had been reduced to 27. Apparently 97 per cent. of all the cases are reported. Evidently the fear of punishment accomplished what gentler measures could not do. The few cases still unreported come mostly from hospitals, where the disease is discovered only at time of death or from autopsy findings.

"Of the deaths that occur annually in Boston from Tb., 67 per cent. have not been reported for more than one year; 17 per cent. for not more than two years; 11 per cent. for not more than three years. The Department, for this reason, has made a general survey of all the cases in its registry up to Jan. 1, 1916, and there were 12,200 names on file. Only 5,100 were definitely located.

"The number of pulmonary and laryngeal Tb. cases in this city is probably not more than 7,000, and certainly not less than 6,000. The number of cases is at least six times the number of the annual deaths from the disease. Owing to the difficulty in locating the patients, no more accurate estimate can be made at present.

"The conditions of Tb. in Boston show much improvement. It is a great satisfaction to state that not a single neglected, bedridden case was found in the city. Most of the patients who would have come under this class had gone voluntarily to hospitals. Others had been removed to hospitals by order of the health department because their presence at home was a danger. At the present time practically all the advanced cases that cannot be cared for at home can find suitable hospital accommodations. If the whole campaign against Tb. had accomplished no more than this, it would have well repaid the efforts expended.

"As to hospitals, the Boston Consumptives' Hospital has 410 beds, 60 of them for children; the trustees of the hospital are authorized also to hire 100 beds in private hospitals. At Long Island there are 75. This gives 585 beds under city control. In addition, there are 131 in private Tb. hospitals. In the State hospitals at Rutland, Westfield, Lakeville, North Reading, there are 1,000 beds, and in the State institution at Tewksbury, 425, giving, in all, accommodations for 1,425 patients. To these hospitals, Boston sends its share of patients.

"It has been estimated that as many available beds as there are deaths annually from this disease should be the minimum standard for real progress in Tb. work. This figure has almost been reached when the available beds in the city and State are considered."

From these data the Department derives the following conclusions, which are commended to the attention of physicians throughout the Commonwealth:

"1. That the deaths from pulmonary and laryngeal Tb. have been slowly but steadily decreasing in this city.

"2. That the cases are well reported.

"3. That hospital accommodations are satisfactory.

"4. That there are no neglected cases.

"5. That the general knowledge of Tb. has much improved, and cases treated at home are cared for in an intelligent manner."—*Editorial, Boston Med. & Surg. Jour., June 29, 1916.*

Points of Attack of Tb.—According to Kober infection by inhalation is the most frequent method. The germs may be propelled into the atmosphere by talking, coughing or sneezing. The dangerous zone about a patient with Tb. extends three feet in every direction. The next most frequent way is to incorporate the bacilli through the digestive tract. Eating-utensils may be the media of transmission; milk and meat are frequently infected. Among the things which Kober indicts are: allowing babies to creep on a dirty floor, long skirts and unsanitary dwellings. Flies are also a frequent source of infection. Damp soil and houses predispose to Tb. City dwellers should remember that the greater the park space in their communities the less will be the Tb. The death rate has dropped from 326 per 100,000 in 1880 to 147.6 in 1913—*Editorial, Medical Record, Sept. 2, 1916.*

Cases of Surgical Tb.—Illustrative cases of extensive perirectal suppuration, extensive cervical adenitis with sinuses, old and recent abdominal Tb., are cited from the surgical service of Sea View Hospital (New York City), proving that thorough dissection of even old and widespread tbc. foci can accomplish local cure and improve the accompanying pulmonary disease.—*Clinical Notes from the First Surgical Division of Sea View Hospital, A. Nicoll & M. J. Horan, N. Y. Med. Jour., June 24, 1916.*

Cyanocuprol in Tb.—The action of cyanocuprol upon tbc. lesions of animals seems to be as follows: A single injection s negative or inconspicuous. After repeated injections the congestion and leukocytic infiltration about the lesions are markedly decreased, the cheesy material resulting from degeneration products are in process of absorption, and young connective tissue is being actively produced at the periphery. The number of bacilli is also being reduced until they can no longer be found microscopically. The extent of the cure produced has not, however, been solved. Emulsions of lung, liver, spleen and other organs of treated animals were injected into the abdominal cavity of guinea-pigs. Some of these developed Tb., and therefore absolute immunity of the treated animals had not been obtained in these instances.

Clinically, the preparation greatly improves or apparently cures pulmonary and surgical Tb. in the first and second stages, and it seems to produce beneficial effects upon the disease in the third stage. The duration of these beneficial effects is still to be established by more numerous trials and further observation. The preparation must be given intravenously, and the doses must be increased or decreased according to the age and constitution of the patient. Thus the minimum doses (10 to 12 mg.) will be best suited to a patient who is greatly emaciated, and should be gradually increased as the reactions, pathological processes, nutrition, etc., indicate.—*A Contribution to the Chemotherapy of Tuberculosis, First Clinical and Experimental Report, Gensaburo Koga, Jour. of Experimental Medicine, Aug. 1, 1916.*

Cyanocuprol in Tb.—In eighteen cases of Tb. treated with cyanocuprol the results were markedly effective. It may be used more generally than tuberculin.[1] The maximum dose of 8.5 c.c. should never be exceeded. The shortest interval between injections should be two weeks.[2] The patient should be placed under conditions of complete physical and mental rest after the injection. Rest to the lesion is also necessary. Irritants to the lesion, such as potassium iodide or tuberculin, should be avoided.[3] No marked idiosyncrasy has been noted and no cumulative effects have been observed.—*The Treatment of Tuberculosis with Cyanocuprol, Morisuke Otani, Journal of Experimental Medicine, Aug. 1, 1916.*

Tbc. Infection.—Baldwin believes that in the ultimate survival of those who acquire a relative immunity there will be a tendency to diminish the severity of the disease. By inherited immunity the disease will be combated and reduced in virulence, so that after many generations its severity will be reduced. He believes that the opportunity for infection will react to the benefit of the human race by establishing a gradual immunity.

The importance of bovine infection in the young is emphasized by many authorities, who estimate the percentage of bovine infection in early life between 25 and 70 per cent. Some believe that gradual infection with the bovine bacillus may establish immunity against the human type. There is a possibility that the milk of immunized cows may be useful in the prevention and treatment of Tb. in the human. Pasteurization of milk should be generally adopted.—*Tubercular Infection in Infancy and Childhood, V. Adriance, Boston Med. Surg. Jour., Aug. 17, 1916.*

Throacic Diseases. An excellent outline of the present status of surgical therapy by a member of the Mayo Clinic.—As to the co-operation of the physician and surgeon the author says: "No region in the body demands the combined efforts of physician and surgeon more than the pleural cavity. The internist occasionally needs the surgeon, and the surgeon never ceases to require the conservative help of the physician. Therefore, kindly regard us thoracic surgeons as your servants rather than as your substitutes, as your consultants rather than your competitors." If an acute empyema does not heal after rib resection and drainage, surgical revision is necessary. "Remove a small piece of tissue at the mouth of the drainage opening, have a section made and examined for tubercles. Cultures and guinea-pig inoculations from tbc. purulent discharges will rarely prove the presence or absence of Tb." "The tbc. patient is *a priori*, a poor surgical risk and the outlook for successful extirpation of tbc. lung tissue is particularly discouraging. You read of collapsing the tbc. lung by an extrathoracic operation, pleuro-pneumolysis or the resection of numerous ribs to collapse the chest wall and therefore the lungs. Let us suspend such radical and dangerous experiments until we have learned more of the actual value of collapse therapy by artificial pneumothorax." By the aid of the latter about 13 per cent. of progressive cases are arrested, while 40 per cent. obtain symptomatic relief. Attention is drawn to the rare cases of so-called cold abscesses of the chest wall. Fluctuating swellings, usually on the anterior chest wall, without redness or tenderness, finally rupture or are incised and discharge pus and, later on, a bloody, watery secretion. Stereoscopic radiograms show the shadows of a localized pleurisy. Excision or resection reveals a minute fistulous opening leading to the outer surface of the parietal pleura. The ribs are not necrosed. Bacilli or tubercles are not found. Still the lesion suggests Tb. A cure can only be effected by free drainage or excision plus the maintenance of the hygiene advised for Tb.—*Thoracic Diseases, The Status of Surgical Therapy. S. Robinson, Journal of the A. M. A., Aug. 19, 1916.*

Infection and Immunity.—It is generally agreed that tbc. infection takes place in early childhood and that nearly all adults have been infected. That this early infection serves as an acquired immunity and protects in the large majority of cases against the development of the disease is proven by the observation that wild tribes possess no immunity and when infected react very severely. There is some doubt, not only upon the possibility, but upon the advisability of attempting to "diminish the sources of infection in childhood." Since every person is infected he may, for all we know, be a carrier of the infection.—*Tuberculous Infection and Immunity, A. C. Geyser, N. Y. Med. Jour., July 29, 1916.*

Syphilis and Tb. in the Same Lung.—A colored male, aged 23 years, shows a progressive loss of weight with cough, dyspnea and a profuse fetid expectoration of three weeks' duration (seven weeks before death). The physical signs point to infiltration and cavity in the lower left lung, and infiltration in the right. In the absence of tubercle bacilli in the sputum and with a history of a rapid course, a diagnosis of pulmonary gangrene led to operation, when the tbc. nature of the case was revealed. Autopsy demonstrated the left lung to be the seat of a cylindrical dilatation of the bronchi, with fairly large bronchiectatic cavities and a generalized overgrowth of fibrous tissue. A tbc. process of miliary and conglomerate tubercles with caseation was present. Microscopically some of these tubercles closely resembles gummata. The tubercle bacillus and Spirocheta pallida were demonstrable in appropriately stained preparations.—*Syphilis and Tuberculosis in the Same Lung, R. A. Keilty, N. Y. Med. Jour., Aug. 5, 1916.*

Study of Tb. in Connecticut.—There are four Tb. sanatoria in Connecticut at which more than five hundred patients are treated daily. At the Hartford Sanatorium Dr. Wagner applied the luetin test to one hundred and sixty patients and found that a large number gave a positive reaction. Dr. Strobel isolated a typical pneumococcus from the bloody sputum of hemoptysis patients and found it to be pathogenic to rabbits. At the Norwich Sanatorium Drs. Campbell and Lynch have demonstrated that the preliminary injection into guinea-pigs of a slightly virulent culture of the human tubercle bacillus had no effect upon the results of the injection later of a highly pathogenic strain. They died at exactly the same time as the controls. Dr. Lynch, in a study of the secretions of the mouth and throat of fifty consumptives, found the tubercle bacillus present only in four, and these were extreme cases and died within ten days. At the Meriden Sanatorium Dr. Dinnan obtained some good results in pulmonary cases through the use of heliotherapy. He also studied the blood pressure in hemoptysis cases before, during and after hemorrhage. He found that hemorrhage is never due to high blood pressure, that bleeding cases had lower blood pressure than the average consumptive, that the pressure before the hemorrhage is lower than the normal for that case, that the blood pressure rises during the hemorrhage, remains high for a short time after, and then slowly falls to what it was before. At the Shelton Sanatorium Dr. Stockwell has already demonstrated twelve cases of streptothricosis, in nine of which there were no tubercle bacilli. These were all severe, hemorrhagic cases. One of these patients had been treated for pulmonary and bone Tb. and had the leg amputated. When the hip was involved he was sent to the sanatorium. No bacilli could be found in the sputum, but the streptothrical granules were found both in the sputum and the sinuses of the chest and hip. The iodides have stopped the progress of the disease. Of the other eleven cases two died, one left without treatment, one remains unimproved, six have been discharged with disease arrested and one has been improved. The treatment consisted of the administration of iodides up to tolerance. One patient received seventy grains t. i. d. The von Pirquet reaction was also studied. The test was applied to 133 patients, each patient being tested with the human and bovine tuberculin at the same time. Of the 133 cases, only 61 reacted. Of the 16 incipient cases tested, 10 were positive and 6 negative. Of the positive, 2 were positive only to human, 2 only to bovine and 6 were positive to both human and bovine

[1] The amount of the dose is closely related to the reaction and the final result. It should be determined for each patient after a careful examination of his symptoms.

[2] If the drug is given after a shorter interval, no improvement is observed and the effects are sometimes dangerous.

[3] Apricot-juice, guajocol and its derivatives, and odol are contraindicated.

tuberculin. Of the 55 moderately advanced cases, 26 were positive and 29 negative. Six reacted only to human tuberculin, 5 only to bovine, and 15 to both. Of the 58 advanced cases, 23 were positive and 35 negative. Three reacted only to human tuberculin, 4 only to bovine, and 16 to both. Four cases of surgical Tb. tested gave 2 positive and 2 negative reactions. One reacted only to bovine tuberculin. Dr. Stockwell obtained 24 positive complement fixation reactions in 26 patients; in 5 controls the result was negative. Some of the tests were positive, although the von Pirquet was negative.—*Connecticut, A Student of Tuberculosis, Stephen J. Maher, Med. Record, Aug. 5, 1916.*

Common Sense and Consumption.—A sanatorium superintendent says: "Doctors would make fewer errors in diagnosis if they depended more on symptoms, and placed less reliance on the physical signs that may be present. Physical signs without symptoms can usually be ignored. Symptoms, however, with or without physical signs, need careful study." In some cases we should make a positive diagnosis on the history and constitutional signs alone, without signs in the lungs. Such cases are not uncommon. Likewise, but rather less often, one can safely make a positive diagnosis on lung signs alone without marked constitutional disturbances. In the vast majority of cases there should be present both signs in the lungs, generally including rales at some time or other, and constitutional signs, such as fever, rapid pulse, subnormal temperature, loss of weight and strength. A hemorrhage, not including minute streaks or flecks of blood in the sputum, always means Tb. until the contrary is proven. This rarely happens. It need not always mean, however, that the patient should give up his work for a long time and go to a sanatorium. The X-ray gives confirmatory evidence which is rarely of great value in diagnosis when taken by itself. Tuberculin tests are of little value and may do harm. Observations of temperature and pulse are very valuable. The most important evidence, and probably the most neglected, is that obtained from a careful and detailed study of the patient, his family history, habits, surroundings and occupation. From the patient's point of view it is better to be safe than sorry, better to undergo a few weeks or months, perhaps, unnecessary treatment as a "lunger" than to linger along in false security until the chances of cure are gone.—*Common Sense and Consumption, J. B. Hawes, 2nd, Boston Med. and Surg. Journal, July 27, 1916.*

Relation of Bronchial Gland and Lung Tb.—We should never say there is no danger from Tb. until we have proven the absence of tbc. processes in the bronchial glands. Peribronchial infiltrations of the lung extending from the hilus may give no pulmonary signs. As these infiltrations reach air passages which are not sufficiently rigid to resist their pressure, the entrance of air into these passages is interfered and we have weakened breath sounds and insufficient expansion of the alveoli. Not only is there absence of dullness, but there may be hyperresonance due to retained air. As the process advances we have areas of atelectasis where the air does not go beyond the bronchi. There are no rales or other signs of infiltration and consolidation, but we can detect that there is no inrush of air into the alveoli with inspiration. When tbc. glands press upon the trachea and bronchi they may produce stenosis, which does not interfere with the entrance of air, but interferes with the exit of air from the lungs. We therefore have delayed and difficult expiration, and as the process advances expiratory dyspnea results, which ends in asthma and emphysema. If the back pressure is sufficient to distend a bronchus we have bronchiectasis with expectoration of profuse purulent sputum which, as a rule, does not contain tubercle bacilli. Irritation at the point of pressure causes hyperemia and chronic bronchitis. This congestion of the bronchial mucosa may result in hemorrhages which recur for years. Before we can give conscientiously a verdict that there is no Tb. of the lungs we may be forced to seek the aid of tuberculin and the Roentgen ray.—*The Relation of Tuberculosis of the Bronchial Glands to the Diagnosis of Tuberculosis of the Lungs, Mary E. Lapham, Med. Record, Aug. 19, 1916.*

Gastric Function in Tb.—Among one thousand cases of pulmonary Tb. symptoms referable to the stomach were complained of in 64.6 per cent. Most of these symptoms are due to catarrhal inflammation; other organic changes are extremely rare. The method employed in studying the gastric function consisted of "fractional estimation." The inaccuracy of the old method used in other investigations by different observers accounts for the contradictory results obtained. The patients studied comprised twenty-two early and twenty-five advanced cases. From the very beginning of the disease there is a downward progression in both motility and secretory function. Hyperacidity with or without symptoms is quite rare. The so-called pretuberculous dyspepsia is in reality a manifestation of definite tbc. infection. There is a distinct tendency toward the formation of a definite clinical syndrome known as delayed digestion which becomes more and more associated with symptoms as the disease progresses. The swallowing of tbc. sputum plays a highly important rôle in the continuation and aggravation of disordered function. No less important are the visceroptosis and gastrectasis. Fractional estimation with the development of secretory curves is at the present time the most accurate method of studying the gastric function.—*Gastric Function in Pulmonary Tuberculosis, H. K. Mohler and E. H. Funk, Amer. Jour. Med. Sciences, Sept., 1916.*

Tb. Laryngitis.—Aside from the general treatment of the pulmonary Tb., every patient at intervals not greater than one month should have a careful examination of the larynx, and at the first sign of a laryngitis should receive the proper treatment. Fewer laryngeal complications would ensue if this were done. All nasal deformities should be corrected. Overuse of the voice, faulty phonation and needless hacking and scraping of the throat invite the inflammation. He has found that a solution of 5 per cent. methol and 5 per cent. guiaiacol in olive-oil injected endolaryngeally will alleviate the desire to clear the throat and will give a rest to these parts. If there is much thickening between the arytenoids, he touches the tissue with crystals of trichloracetic acid, and after the slough has come away the voice usually is much improved.—*Tuberculous Laryngitis, J. William Wright, Indianapolis Medical Journal, Aug., 1916.*

Complement Fixation in Pulmonary Tb.—Meyer describes tests made in 48 cases with positive sputum, using Miller's antigen with positive results in all but two cases = 96 per cent. This is in accord with the findings of Baldwin with 90 per cent., Craig with 96 per cent., and Radcliff with 89 per cent. positive tests.—*Complement Fixation in Pulmonary Tuberculosis, A. Meyer, Med. Rec., Aug. 5, 1916.*

Subsidence of Keratitis Under Tuberculin.—Haab calls attention to a form of keratitis which he has named *Buchstaben-*, "letter," keratitis. He has encountered only seven cases of it in the course of eighteen years. Its detection requires illumination from the side, with an exceptionally powerful light, such as a Nernst or Osram light. The surface of the cornea shows certain linear irregularities, the epithelium projecting a trifle to form short lines which, as they meet and cross, form figures resembling the straight line letters, A, W, V or X. Small round infiltrations may be scattered along the lines, and there may be some irritation of the eye. The keratitis may subside in from one to three weeks, but in some cases it returns again and again. It may entail reduction of the intraocular pressure or even loss of vision from the changes in the depths and on the surface. In one such case a woman of twenty-five had lost the use of the left eye from years of keratitis, with permanent opacity of the cornea. She had been under specialist treatment for years without avail. The right eye finally became involved. No treatment seemed to have any power to arrest the slow progress of the affection until, after nine months, as a last resort, a course of tuberculin treatment was commenced, and at one stroke the trouble was checked. The inflammation subsided, the cornea became smooth and vision improved from 5/60 to 1/5 in less than two months and finally became 5/5. In the course of three months twenty-four injections of tuberculin had been given, and there can be no doubt that this saved the eye which was slowly going the way of its mate, in which vision had long been only 1/10. He has had no opportunity to try tuberculin in any other case of the kind.—*O. Haab, Corresp. Blatt fuer Schweizer Oerzte, Aug. 12, 1916, No. 33.*